



Agency for Toxic Substances
and Disease Registry
Atlanta GA 30333
June 19, 2001

Ms. Bonnie Lavelle
U.S. Environmental Protection Agency
Mail Code 8EPR-SR
999 18th Street
Denver, CO 80202

Re: Comments on EPA's draft remedial action objectives for arsenic and lead in soil at the VBI70 site

Dear Ms. Lavelle:

ATSDR appreciates the opportunity to comment on EPA's draft remedial action objectives for arsenic and lead in soil at the VBI70 site in Denver. ATSDR's comments are organized according to each lettered objective.

Objective A. ATSDR would like to point out that at some NPL sites, EPA has used a cancer risk for arsenic lower than the currently proposed 1 in 10,000 risk. ATSDR requests that EPA review these sites and consider using a cancer risk of 1 in 100,000 for the VBI70 site.

Objective B. At this time, ATSDR is unclear about how EPA arrived at the decision that consuming home-grown produce increases cancer risk. ATSDR is concerned that the increased risk estimated from eating home-grown produce is based on limited sampling of produce and some problems with external contamination of produce, particularly the onions from one property. ATSDR requests that EPA consider the limitations of making cancer risk estimates based on limited data as well as the benefits from eating home-grown produce when making decisions about the risk from arsenic in produce.

Objectives C and D. ATSDR requests that EPA identify the health guideline and time frame (acute, intermediate, subchronic, chronic) that is being used for the hazard quotient approach.

Objective E. ATSDR believes that preventing soil-pica behavior is not an acceptable approach as the sole method for protecting public health. Soil-pica behavior is an innate behavior in 1- and 2-year-old children and teaching them about the hazards of such behavior will not stop that behavior. While it is possible to educate parents about the hazards of soil-pica behavior, it is not reasonable to assume that parents can watch their children constantly to prevent that behavior. ATSDR views health education on soil-pica behavior as an interim measure to reduce the risk from soil-pica behavior while more permanent solutions are investigated.

One can use the corollary of pica children eating paint as a guide for the appropriate public health actions when addressing soil-pica behavior. While public health agencies have conducted health education to teach parents about the hazards of children eating leaded-paint, the solution recommended by public health agencies is the removal of leaded paint that had begun to deteriorate. This same public health principle should apply at the VBI70 for soil-pica children, that is, EPA should stop exposure to contaminated soil by other means and just education.

For cancer risk, EPA's objective also states that the preliminary remediation goal is the background arsenic level of 8 to 15 ppm, which corresponds to a cancer risk of 1 in 100,000. ATSDR would like to know if site-specific factors (e.g., the bioavailability from the VBI70 pig study, length of residence, indoor dust) were used in estimating the cancer risk for 8 to 15 ppm. If not, ATSDR recommends, that EPA uses these site-specific values so that the comparison to cancer risk at higher soil arsenic levels are appropriate.

The comments that follow pertain to the preliminary remediation goal for lead in soil and discussions that ATSDR staff members have had with EPA. It is unclear how EPA will determine for an individual property whether or not soil lead is the source of blood lead. More than likely, soil lead will contribute some portion to the overall blood lead levels detected in a child along with lead from other sources, such as diet and leaded paint. Even when leaded paint is found at a property, it is likely that soil lead will contribute to overall blood lead levels. ATSDR is concerned that EPA will not take action to stop exposure to lead in soil when leaded paint is found at a house because of the erroneous conclusion that leaded paint is the sole source of lead.

ATSDR is also concerned that after identifying properties with soil lead problems that EPA is planning to wait until children exceed CDC's level of concern of 10 µg/dL before taking action. Such an approach will mean that neurological damage (e.g., lowered IQ scores) will have already taken place. ATSDR recommends that EPA take a proactive approach by preventing exposure to lead in soil.

Sincerely,

David Mellard

David Mellard, Ph.D.
Toxicologist

cc: EPA working group members
Mr. Robert Williams, ATSDR
Dr. Sharon Williams-Fleetwood, ATSDR
Dr. Sven Rodenbeck, ATSDR
Mr. Dale Vodehnal, EPA